GROUP OF EIGHT

The Group of Eight Limited
ACN 089 687 990

PO Box 6229
O'Connor ACT 2602

Level 2, Group of Eight House
101 Northbourne Avenue
Turner ACT 2612

Tel +61 (0)2 6239 5488
Fax +61 (0)2 6239 5808

executive.director@go8.edu.au
www.go8.edu.au

23 April 2012

Mr Simon McKeon
Chair
Strategic Review of Health and Medical Research in Australia
McKeon Review Secretariat
PO Box 4226
MANUKA ACT 2603

mckeonreview@secretariat.com.au

Dear Simon

Attached is a submission, on behalf of the Group of Eight Universities and the five largest Medical Research Institutes in Australia, to the Strategic Review of Health and Medical Research in Australia.

Among highest priorities for your Review, from our perspective, are

- ensuring continuing funding at a level that enables research-intensive universities and significant medical research institutes to continue to undertake health and medical research of the highest level of excellence. Specific funding issues needing urgent attention include the need for full funding of research costs, including indirect costs, the widening gap between salaries which have to be paid to retain researchers, and the amounts received in NHMRC grants, and the funding needed to acquire and sustain adequate up-to-date research infrastructure.

- means for developing strong career pathways and structures and development opportunities for clinical and non clinical researchers, including more closely aligned university and hospital/primary health care career paths, resources and support systems. Future research leaders need to be actively developed and mentored. Health workforce planning needs to take account of the present and future demand for researchers, clinical academics and scientific staff involved in various streams of research.

- effective coordination across the health and medical research spectrum of Commonwealth and State/Territory research, health and education agencies and funding bodies to articulate and deliver on a coherent, high quality research system, including translation of research into both health services delivery (hospital and primary/community care) and teaching and training. Universities, medical research institutes, hospitals, community/primary health care services and illness prevention initiatives are all inter-dependent, and work best when there are strong collaborative relationships. One specific initiative which we strongly support is the establishment and funding of a small number of Academic/Advanced Health Science/Research Centres, proposed by NHMRC some time ago but not yet progressed, as we had hoped.

- there needs to be an active embedding of a research culture throughout the health system, so that health care providers and administrators contribute to, foster and draw from the expanding body of knowledge, and provide high quality training for the next generation of health professionals. Key Result Indicators need to include research indicators of excellence, across the health system.

We appreciated the opportunity to meet with you, Professor Little and your Secretariat. We see the outcomes from your Review as setting a foundation and strategic perspective for many years. As your Panel deliberates further on these issues, and moves towards options and possible recommendations to the Government, the five Institute Directors and Go8 University Deputy Vice-Chancellors Research and Deans of Medicine would value the opportunity to interact further with you, and all of the panel. In particular, we would be willing to discuss possible implications and consequences of possible options you may be considering.

If you wished to consult with the Go8 Board (Vice-Chancellors), I would be happy to make arrangements for that.

Yours sincerely

***Alan Mackay***
***Director, Information Strategy***
***Secretary, Go8 Committee of Medical Deans***

GROUP OF EIGHT

# Submission to the Strategic Review of Health and Medical Research in Australia

## On behalf of the Group of Eight Universities and the Five Large Medical Research Institutes

### 1 Introduction

This submission is made on behalf of the thirteen institutions which, between them, undertake the great majority of the competitively funded medical research in Australia. They are

- The University of Melbourne
- The University of Sydney
- Monash University
- The University of Queensland
- The University of New South Wales
- The University of Adelaide
- The University of Western Australia
- The Australian National University
- The Walter and Eliza Hall Institute
- The Queensland Institute of Medical Research
- The Baker IDI and Diabetes Institute
- The Murdoch Childrens Research Institute
- The Garvan Institute of Medical Research

They each undertake very substantial programs of significant and internationally recognised high quality research, across a broad range of health issues. They also work together on some major research projects. They work very closely with many of the largest hospitals, and also with smaller and community based health facilities. Further, on occasions they work with other universities and medical research institutes. These thirteen institutions have a long and hard-earned track record of the highest quality health and medical research, both basic and applied. While all are headquartered in capital cities, the research work (particularly of the universities) is undertaken in city, regional and rural locations, as well as their bases.

Additionally they provide undergraduate and/or postgraduate training to the top health and medical science researchers, clinical academics and other professions within the health care work force.

Each of the institutions may also make separate submissions to this Review, reflecting the particular specialist types of research, illnesses/conditions and socio-demographic, geographical or other dimensions of their research.

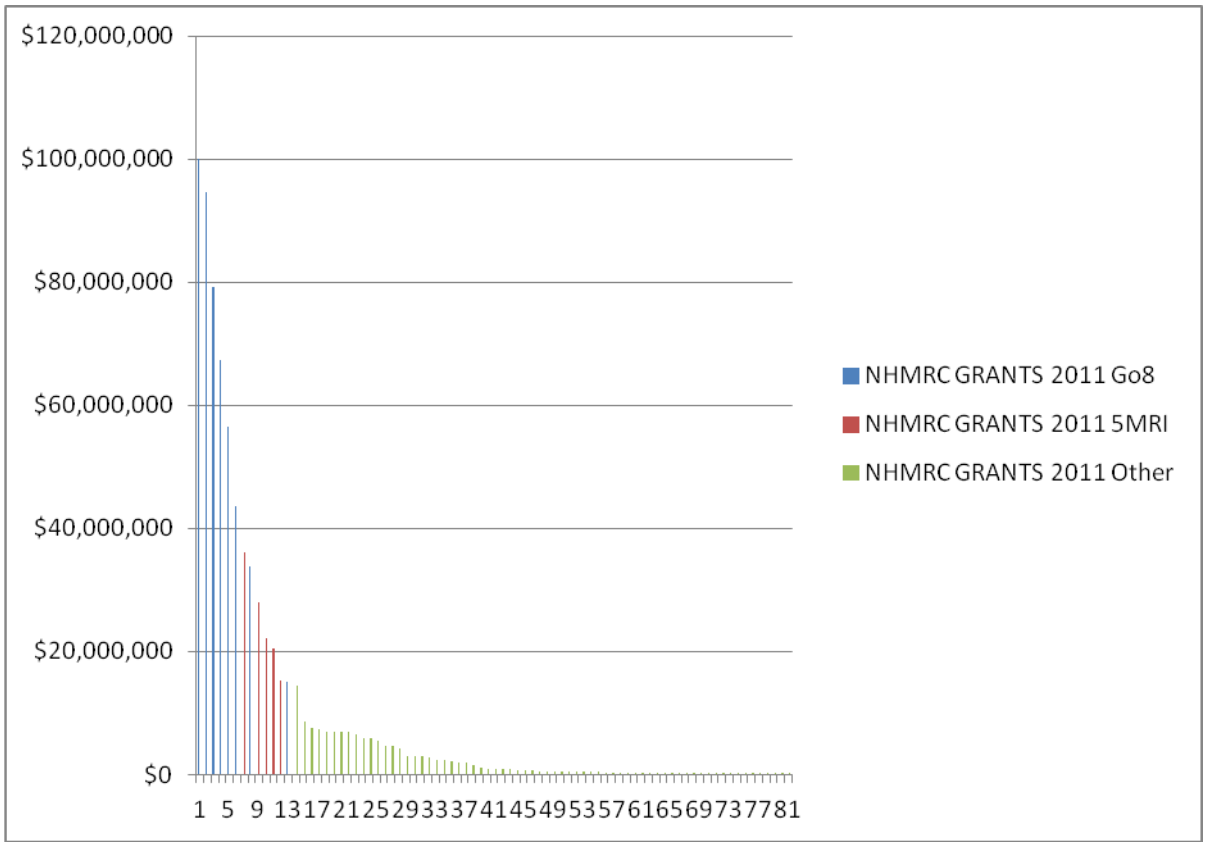
### 2 Background

NHMRC data show that in 2011, grant funding of over $746 million was made to 81 Administering Institutions. Over 80% of this grant funding was allocated to one of the Go8 universities (65%) or the 5 largest MRIs(19%).

Figure 1 shows the distribution of 2011 grant funding, by Administering Institution. It demonstrates the significance of these thirteen institutions, and the very long tail of much smaller organisations receiving NHMRC funding to undertake health and medical research.

Over the decade 2002 to 2011, grants of more than $5,128 million were made, to a total of 127 Administering Institutions. Of these, more than $3,188 million (62%) were made to Go8 universities and almost $894 million (17%) to the 5 largest MRIs.
(While there are other significant sources of research funding, the NHMRC is the major funder of health and medical research, and NHMRC data are used here to demonstrate the importance of these universities and medical research institutes.)

**Figure 1:NHMRC Grants 2011 - Distribution by type of Administering Institution**




Data Source: http://www.nhmrc.gov.au/grants/research-funding-statistics-and-data/funding-datasets , Current Decade - NHMRC research funding dataset 2002 - 2011 (XLS, 17.4MB) accessed 6 March 2012.

Not only do these universities and MRIs undertake the great majority of health and research. That research is demonstrably of the highest quality. The Australian Research Council Excellence in Research for Australia results for 2010 http://www.arc.gov.au/pdf/ERA_s4.pdf show the outstanding calibre of Go8 research in the medical, health and biological sciences. See Appendix 1, Table 1. For most the fields of research for which they were rated, the Go8 universities were either **well above world standard** or **above world standard**.

## 3 MAJOR ISSUES IDENTIFIED BY REVIEW

### *1 Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector?*
**(Terms of Reference 1 and 6)**

### Australia's Population Health – A Continuing Challenge of Prevention, Cure and Care

A high priority for any nation is to provide for the health of its citizens. To deliver on this priority requires establishment and maintenance of a system, based on sound foundations.

There remain many conditions and illnesses which cause premature morbidity and mortality in the population, or in some sub-populations.

For some of these, the research has been done, the causal links established, and responsibility for action lies with individuals to modify behaviour, governments to introduce effective policy settings and programs, and health professionals. For example, causal links of smoking with higher incidence of lung, lip and mouth cancer and cardiovascular and respiratory illnesses are clear.

However, a continuing research agenda remains, of evaluating effectiveness of treatments, and developing better preventative and curative interventions. Some of these may well have benefits for patients with other conditions, or with these conditions from other causes.

For many other conditions, there remains a large research agenda to explore unknowns, and to follow through on past research results which might point to tentative conclusions. And for some health issues, research is at an early stage, sometimes enabled or assisted by improvements in diagnostic and other technologies.

Some of the numerically significant causes of death – cancers, cardiovascular diseases, diabetes, etc receive substantial Commonwealth government funding directed to various aspects of the diseases. This is well demonstrated in Figure 9 NHMRC Funding Facts Book 2011.
http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/nh154_research_funding_facts_book_111214.pdf

There are many other diseases and conditions besides those priority health areas which likewise need research. It is arguable that because they don't have the same profile, they are less likely to receive popular support in the form of public donations and bequests, and research grants might gain less leverage. However, continuing government support for research is important. Those who suffer from such conditions, and those who will contract them in the future, should not be discriminated against by there being no or little government support for research projects of a quality which is likely to yield good outcomes. Apart from this argument on grounds of equity, there is the ever-present likelihood in medical research that work directed to a particular purpose or on a specific condition or illness may yield an unexpected breakthrough in a different disease or condition.

Figure 9 of the NHMRC Funding Facts Book demonstrates the strong increase over the decade in research funding directed to Prevention.

Patterns of incidence are changing over time. Mental illness and health has assumed a higher profile in the general population and with governments in recent years, with a research agenda around cause, prevention, short and long term effects, and patient management all to be researched, from the brain cell biochemistry and bioelectrical physics, the psychiatric and

psychological dimensions, to the effects of present and future treatment regimes, the impact of substance use/abuse, the family and community issues, and health system issues.

Commitments to address deficits in Aboriginal and Torres Strait Islander health status and outcomes can be implemented in part by addressing known factors like housing, water quality and living conditions, dietary intake, alcohol and tobacco use. However, there remain many issues to be researched to close many dimensions of the gap, and this work can only be done in Australia, in the context of a vibrant medical research community, well integrated with health services in regional, remote and urban communities.

There is the impact of the various "lifestyle diseases" at a broader community level, where research can provide insights into causes, possible preventions and cures, management regimes, etc.

Then there are the new medical conditions which may emerge or be identified, for which research starts at the fundamental level.

The continuing development of genetic research and other new techniques opens up new frontiers for research, basic and applied.

It is important to recognise that there are different types of medical and health research, all of which are critical to a viable, successful health and medical research sector which contributes at the national and international table.

While applied research often receives more media coverage and popular acclaim, we would stress to this Review the essentiality of basic research, and the critical importance of government funding being directed towards it.

Research at the cellular and sub-cellular level, the systemic research, the interactions with other body systems, the 'whole person' and the population and public health dimensions all are critically required. Research of diagnostic and treatment/management dimensions is required.

**The International Dimension**

In the international context, much of Australia's health and medical research is very highly regarded. The ERA results for these institutions demonstrate this. It is critical that Australia's contribution to the research and its range, amount and quality of research continue to be at this high level, (and in a few instances, that the level be raised) to ensure international collaboration (by demonstrating Australia has a contribution to make), to retain top Australian researchers, including those at mid career, and to attract (or attract back home) high calibre researchers from elsewhere. The Review Panel's question refers to an ***"internationally competitive health and medical research sector".*** We would prefer that it be expressed as "internationally collaborative and of international quality".

Australia can not afford the reputational damage of a decline in the range and quality of its health and medical research outputs. Australia benefits substantially by being at the world 'top table' of medical research, contributing the results of Australian research, hearing firsthand the results of others' research, and being included in international collaborations. Any perceptions that Australian research is sliding towards the pedestrian in quality or, effectiveness in its application and translation would mean Australian researchers would be less welcome. Our hard-won status would be difficult to regain, if we were to slip in the breadth and quantity of excellent research. More importantly, the quality of health care, and, as a consequence, the health status of Australians, would suffer from reduced access to the essential pool of international talent and knowledge.

**Why Australian Research?**

Addressing the more fundamental question of why Australia should have a health and medical research sector at all, there is a wide range of potential benefits to the Australian population.

Australian research delivers better health status. Australian research can be applied and translated, relatively quickly and effectively for teaching, training and care. Australian research gives Australia a window into world medical and health research. Better health status in turn leads to greater economic productivity of the employed work force. Research enables some people who would otherwise be excluded or limited because of illness or disability to enter the work force and contribute in an economically productive manner. Fewer days of illness is a simple metric – an example of the direct benefits of medical research translated into illness prevention and management/cure through research-developed immunisation and medications. Avoidance of premature death, which can be measured through such metrics as years of life lost, results in longer working lives for many.

There is an extensive international health economic literature around the subject of the economic benefits of health and health research – benefits which are quantifiable and benefits which are not. We have not explored or cited that in this submission, but would expect that the Review Secretariat would take it into account in considering the issue of economic benefits of research.

Australian medical and health research can address uniquely Australian health issues, as well as issues of global importance or application. As an example, at the anecdotal end of evidence of benefits, we note the 22 March media release ***Health Research Investment Delivering Back to the Economy*** by the Hon Warren Snowdon MP, Minister for Indigenous Health, welcoming the finding of a Deloitte Access Economics study that government investment in a health research school is delivering a threefold return to the economy. While noting the dollar figures and the strong positive return on investment in research, the Minister also commented

*"It is hard to put a price on improving outcomes for Aboriginal and Torres Strait Islander people, it is impossible to say what closing the gap in child mortality, or life expectancy is worth, especially to Aboriginal and Torres Strait Islander people".*

Of course, medical and health research is about much more than economic benefits. Improved health status brings better individual quality of life, and improved societal wellbeing, in many dimensions – many of them real but not measurable. The Minister's sentiments could be repeated and generalised about a large number of research breakthroughs, small and great, as a result of the dedication, curiosity, expertise and skill of Australia's world class researchers.

***2 How might health and medical research be best managed and funded in Australia?*** **(Terms of Reference 2, 3 and 7)**

**Breaking down Governance and Bureaucratic Silos and Barriers**

There needs to be a "whole of system" approach to health and medical research. The present barriers between different portfolios, and different levels of government, must be removed.

For example, medical research is funded through the Health portfolio at Commonwealth level. Research in engineering, physical sciences, biological sciences, mathematics and statistics, computing, etc. is funded through the Australian Research Council, in the Industry, Innovation, Science, Research and Tertiary Education (DIISRTE) portfolio. However, research into direct application of these disciplines to medical or health research can be precluded from funding, or "fall through cracks". Multi-disciplinary health-related research, which potentially would yield major breakthroughs, will be difficult to have funded under present arrangements.

Until the recent change in administrative arrangements and portfolio responsibilities, universities' operations were funded through the Employment, Education and Workplace Relations portfolio. The placing of this role in the DIISRTE portfolio is welcomed, and it needs to be quickly and fully integrated into the portfolio.

Policy responsibility at Commonwealth level for many of the health-defining socioeconomic factors in parts of Australia's population are the responsibility of the Families, Housing, Community Services and Indigenous Affairs Portfolio. While there has been some research, there is unexplored territory for research on the relationships of some of these factors and health, to deliver real, effective solutions to disease burden and health deficit.

At the State/Territory level, there are Health portfolios and Science offices with sometimes different perspectives and agendas on health and medical research.

The challenge is to get whole of government(s) working effectively and seamlessly, and in turn working well with the research sector.

**Hospitals**, where significant research is undertaken, are funded through complex and changing arrangements, from both Commonwealth and State/Territory sources as well as private sources. There is a real danger that in-hospital research (traditionally part of the *raison d'être* of public and particularly teaching hospitals) not explicitly funded, will be squeezed out by pressure to deliver services, and shortage of funding.

The newly formed National Health Performance Authority (NHPA) and Independent Hospital Pricing Authority (IHPA) have mandates which can markedly impact on the priorities and funding of activities in and outside hospitals. The NHPA has a Performance and Accountability Framework which has no indicators for Teaching, training and research. The IHPA draft Pricing Framework states that
*"Teaching, training and research will also be funded using block grants, until classification and costing data support a transition to funding on an activity basis."*
In essence, this means that it is of lower priority for IHPA work. Go8 Deans of Medicine and Medical Deans Australia and New Zealand want to work with NHPA and IHPA to develop meaningful indicators and cost models.
We would submit that this Review should make comments on the importance of adequate funding for research, in and out of hospitals. In our experience, hospital boards and executive leadership in the USA support research in a manner that is rarely seen in Australia. Research is included and evaluated as a Key Performance Indicator. Until this is more widespread in the Australian hospital and health care management culture, research will take a lower priority in the health services delivery system.

**The Research Grants Process**

There needs to be more efficient processes for applying for research grants, and evaluating applications. The present arrangements divert a considerable amount of valuable researcher and senior researcher time from research into grant application. Similarly, a lot of senior researcher time is taken up with peer review and assessment practices. We would submit that funding institutions with acknowledged senior researchers, with the specific mandate to build high-achieving teams, and mentor junior and mid-career researchers, would be a more efficient process.

**The Health and Medical Research Work Force**

**Health and Medical Researchers**

This is an issue of great significance to Go8 University Deans of Medicine and Health Sciences, and Directors of large significant MRIs. Perhaps the greatest area of concern is for future clinical academic researcher/educators. The demography of these senior clinician researcher educators is clustered around the older age groups of the labour force. The workload is demanding. Acquiring postgraduate academic qualifications (MD, PhD and postdoctoral) and specialty qualifications (College Fellowships) takes a long time, but both are needed for these positions. At the same time, anecdotal evidence is that increasing numbers of medical graduates are seeking to balance competing priorities of family, caring for elderly parents and lifestyle balance by seeking part time positions. There is a need to develop better clinical/academic training pathways in Australia. University Deans and MRI Directors need to be involved, but there are other significant players. This Review might helpfully recommend that NHMRC take leadership of a consultative process involving the significant stakeholders.

**Need for Researchers from Other Disciplines to be More Involved in Health and Medical Research**

There needs to be specific attention paid to the developing of the future broader health and medical research work force. This need covers biomedical scientists across a wide range of sub-disciplines. It covers specialist qualified clinical academics in medicine and the allied health sciences. It covers epidemiologists, mathematicians, statisticians, health economists and econometricians, ethicists, and experts in technology transfer and in emerging sciences like nanotechnology and systems biology.

Management of various large elements of the health system is now of a magnitude, complexity and cost that it, too, should be the subject of more research, translated into evidence based initiatives to improve effectiveness and efficiency.

We would note that it can take a considerable time to assemble and retain a skilled multidisciplinary research team, particularly in a climate of future funding uncertainty.

**Researchers' Salaries – the Gap between Funding and Payments**

There is a significant funding issue which must be addressed. There is a large and growing gap between NHMRC grant funds for salaries, and the actual salary levels which have to be paid to attract and retain good researchers.

One Go8 university has estimated the gap in the current year as approximately 12%. Another university estimates a shortfall of the order of 25-30%, noting that this excludes some essential infrastructure costs. One Go8 university estimated gaps between NHMRC grant allowances and actual university salaries of between about 20% for Junior graduate research assistant; over 40% for Experienced graduate research assistant/Junior postdoctoral research officer; and over 60% for senior experienced postdoctoral researchers).

If this situation is not rectified, the best researchers are likely to be attracted to overseas positions, and/or research institutions will have to divert funds from other sources. Whatever occurs, the quality of Australian health and medical research is likely to suffer.

**Funding Infrastructure**

The present arrangements for supporting research infrastructure costs are unsatisfactory. A simple transparent funding basis is needed, which provides equitable support regardless of where the research is undertaken, would be preferable to the present arrangements, and would remove incentives for artificial arrangements and "gaming" the system.

**Funding Agencies**

There is a problem with the demarcation between research funded by NHMRC and by ARC, when it comes to medical and health research. Some projects are not necessarily "medical and health" in themselves, but the application of their results and outcomes is fundamental to successful medical and health research projects. For example, there are complex engineering, electronics and robotics research streams which are critical to development of devices, prostheses and equipment. Some basic chemistry research may be undertaken independent of a medical research context, but results may find ready application in a new type of chemotherapy. But, in our experience, sometimes grant applications of high quality "fall through the cracks" in terms of which research grant council should support it. Similarly, multidisciplinary research proposals sometimes founder because funding support needs to come from both research councils, but processes for joint assessment and funding are inadequate

**Viability and Efficiency - Small Research Institutes**

The size distribution of research institutes is reflected in Figure 1. The large number of relatively small research institutes represents a great dilution of the medical research effort, and particularly the funds donated by the public, as they compete through public donation campaigns. The need for management and governance support staff, information technology support, public relations and fundraising staff and associated costs all represent a multiplication of costs, with funds which might otherwise be available for research and research support, being diverted into administrative overheads. Some MRIs face uncertain ongoing viability. This Review might helpfully consider options for consolidation of Australia's medical research institutes, with savings in administrative costs, to achieve overall better payoff for government and private sector funding.

**Philanthropy**

Philanthropy as a source of funding for health and medical research is relatively modest. While comprehensive comparable data are not available, it is well recognised that Australia does not have the philanthropic culture of the United Kingdom or the United States of America. In our submission, the Review should recommend to the Government that appropriate incentives be put in place through taxation benefits for business and individual donations. Such incentives should be designed particularly to encourage significant giving, rather than a proliferation of $2 gifts, given the disproportionate administrative costs to receipt and process small gifts.
In our experience, major philanthropic funding often is directed towards capital funding, such as buildings, rather than to equipping research facilities and funding ongoing research costs. The Australian community needs to come to understand that assisting operational costs of research is equally of benefit, or maybe more so, than new buildings. A shift in this culture will take time, but would be assisted by strategies to recognise donors (when they want that) and by taxation benefits.

Given that one dimension of this Review of Health and Medical Research will address future sources of funds, and particularly future philanthropy, it is timely that the Commonwealth Government released the Report of the (Mitchell) Review *"Building Support: Report of the Review of Private Sector Support for the Arts in Australia"* on 7 March 2011.

http://www.minister.regional.gov.au/sc/releases/2012/march/sc025_2012.aspx

In the Foreword, Mr Mitchell wrote

*"I hold a strong belief that giving to the arts is also for everyone. Like our arts experiences, giving can take many forms—whether by making a one–off donation of money, gifting a culturally significant item, volunteering one's time, or investing in a corporate sponsorship. Giving differs significantly across generations—while older, established donors tend to favour more traditional models, there is every indication to suggest that younger donors are more open to taking risks and giving through innovative means.*

*Australia has many of its own stories of legendary support to the arts. Our large foundations are based on significant historical generosity which has enabled decades of support to important artistic projects. Some of our most significant galleries have built their collections on the basis of private donations.*

*But large–scale gifts tell only half the story. Not everyone is in a position to be able to give the type of funding that draws media attention. Much of the existing support for the arts is made up of small–scale giving. When combined as part of a broad base of support these gifts form a groundswell, a strong, community–based foundation.*

*Arts and cultural organisations, and artists, rely on support from the private sector, in addition to funding from government, to provide long–term stability. In turn, arts and cultural organisations and artists who have a strong base of support are able to plan for the future, and to produce high–quality, challenging and relevant work.*

*One of the common threads to giving, however it takes place, is the sense of value and contribution one gains through giving to the arts. Giving to the arts makes a difference. We all benefit from the arts and culture, and we all have an obligation to support our arts and cultural sectors.*

*Australia is well–placed to build a strong, reliable base of philanthropic and corporate support for its artists and arts and cultural organisations."*

One could substitute "Health and Medical Research" for "arts", and most of these statements apply equally. There have been substantial foundational gifts. There have been successful popular appeals. There has been some business philanthropy.

Towards the end of his foreword, Mitchell states:

*"The report makes recommendations that are designed to broaden and strengthen the base of giving to the arts in Australia. In particular, while it makes proposals for the Australian Government to refresh existing incentives and introduce new initiatives, it also notes the important responsibility that the arts, philanthropic and business sectors have to build partnerships based on a shared endeavour."*

The Group of Eight Universities and the five large Medical Research Institutes involved in this submission would hope for similar objectives and recommendations from the Strategic Review of Health and Medical Research in Australia.

In particular, we draw to attention the Mitchell review recommendations 2, 3, 4, 8 and 10 regarding giving (p7):

*"2. Testamentary giving: The Australian Government introduce the capacity for private donors to provide a cash gift through their will to an arts organisation, and to receive an immediate taxation benefit to the present value of the gift.*

*3. Matched funding: The Australian Government commits funding to support a 'matched funding for the arts' initiative.*

*4. Recognition of philanthropists: The Australian Government implements a formal program of recognition for significant donors to the arts.*

*8. Crowd Funding: The Australian Government develops a crowd funding initiative with a matched funding from government component.*

*10. Cultivating Donors:*
*a. The Australian Government conducts an awareness–raising program, targeting financial planners, taxation accountants and estate lawyers, providing information on taxation and testamentary giving incentives available to encourage private sector support for the arts.*
*b. The Australian Government establishes a public campaign promoting the benefits of giving to the arts using a series of arts 'champions' drawn from the philanthropic, business and arts sectors. "*

Mitchell's Report, and Hugh Mackay's Appendix C *Community and Generosity*, address the shifts in giving cultures and attitudes of baby-boomers and Generation X and Y. Their observations on the young users of digital technology and their different ways of giving led to the recommendation on a "crowd funding" initiative, and is equally relevant to giving towards health and medical research.

As Mitchell comments, his review is not about reducing funding from government. We likewise would submit to this review that there should not be any reductions in government funding to health and medical research. (Indeed, we argue for additional government funding to address strategic priorities.) However, like the Mitchell recommendations on arts funding, we submit that new, additional government funding should be allocated to leverage more giving and a greater culture of giving to health and medical research from the business sector and the general population.

***3 What are the health and medical research strategic directions and priorities and how might we meet them?***
**(Terms of Reference 5, 12 and 13)**

**Basic and Applied Research are Both Essential**

There needs to be a continuing balance between basic research in medical science, applying that basic research, clinical research and translation of research into teaching/training and to health care practice.

**Priorities**

The issues which are of significant health policy priority are among the highest strategic priorities for research. In terms of population subgroups, these include health, morbidity and mortality of Indigenous peoples, the aged and ageing, men, women, children (including the perinatal age-groups).

In terms of conditions and illnesses, priorities need to continue to seek causes, interventions and cures for the preventing or mitigating impacts of medical conditions which have the highest burden of disease, in terms of morbidity, impact on life and premature mortality. This includes the area of mental health and illness.

The future impact of emerging more prevalent “lifestyle choice” conditions, including obesity and multiple co-morbidities (cardiovascular, diabetes, renal disease, some cancers) which may follow, substance abuse, some types of mental illness, and dementia, will all need continuing research, and translation, to develop preventative measures and effective interventions.

There is an issue of principle which needs to be raised. It is legitimate to ask “How much research is sufficient?” in relation to a particular issue. More specifically, “How much publicly funded research is sufficient?” This relates directly to health policy and program implementation. For example, when it comes to Indigenous health and illness, many of the factors which would improve health and longevity and reduce or eradicate some illnesses are well known. Is the priority for more research, or for funding policy and program interventions which will deliver results? The same is true of causal relationships between some specific actions (or inaction) and particular health/medical conditions. Again, using Indigenous health and illness as an example, improved housing and nutrition, clean water and effective sewage, prevention or rapid treatment of infectious diseases and reduced unemployment are all factors which impinge upon illness and health. More generally, benefits of immunisations are well accepted, but there is continuing preventable morbidity where people neglect or refuse to have them. The ‘gap’ will not be closed by health measures and research alone, but it will not be narrowed or closed without both.

**Global Perspective**

In relation to Term of Reference 13 on improved health globally, Australia has long been seen as a lead nation in the Asia-Pacific activities of World Health Organisation. That needs to continue, and will be a challenge in the face of economic and environmental change factors confronting many countries in the region. Eradication of some diseases is on the international agenda. Researchers and innovators, including Australians, need funding to work on barriers to good health – food security, clean water, effective early diagnoses, inexpensive but effective medication, etc. Australia has a long proven track record of leadership and achievement in tropical medicine, and in support for better health in the region. Commonwealth Government funding should ensure that that leadership and achievement will continue.

By taking students from less developed countries, Go8 universities are contributing to the skill development of the health work force in those countries. Many such students receive university scholarships, or whole or partial fee waiver.

At the same time, there is benefit in encouraging Australian medical students to spend some time in less developed countries. Often they work under the supervision of Australian trained clinicians or other health practitioners, or others trained to a similar level. They may undertake a research project and providing some services will provide some of them with a desire to contribute more to researching and solving health issues in the developing world. However, costs can be considerable, and are beyond the budgets of universities and many students. The Australian government should consider means to assist students to undertake more such placements.

Specifically in relation to research, Australia's contribution to global research will be most effective if we remain at the international research 'top table', as argued above.

***4 How can we optimise translation of health and medical research into better health and wellbeing?***
**(Terms of Reference 4, 8, 9, 10 and 11)**

**Translation of Research to Teaching and Health Service Delivery**
It is essential that all teaching and training of those who make decisions about delivery of health care and health services be research-informed. This extends beyond initial education and training, throughout the working life of the active health workforce.

**Academic Health Sciences Centres**

The Group of Eight University Deans of Medicine have been strong and active supporters of the Academic Health Sciences Centre concept. There are excellent models overseas which could be adapted or copied here.
Throughout discussions with the NHMRC and other government officials, there has been an urging for official embracing of these as vehicles for effective and rapid translation of research into both teaching and health services delivery. There has been some discussion of terminology (eg whether they should be referred to as 'Advanced' or 'Academic') – we submit that this is not a material reason for further delay, and ask this Review to recommend rapid government action and commitment of funding to enable AHSCs to be established. That said, we recognise that there are already some examples of significant cooperation between some of the Go8 universities, some other universities, and some MRIs, including those large MRIs which have contributed to this submission. However, we consider that progress in implementing this concept in Australia has been slowed by some bureaucratic inertia. We recognise, of course, that the funding and regulatory responsibility for all of the activities of an exemplar AHSC lie with different levels of government – Commonwealth, State and Territory – and with different portfolios, and with various agencies within those portfolios – Health, Education, Research/Science - and different institutional involvement – universities, medical research institutes, hospitals, community health and other non-hospital services etc. However, we submit that these various bureaucratic structures and responsibilities should cease to be unnecessary obstacles to real progress on effective translation of research; we ask this Review to recommend accordingly.

**Research-Informed Teaching**

Go8 university medical schools recognise their research-intensiveness, compared with many other medical schools. Taking the view that all teaching should be research-informed, they have taken the initiative of offering to collaborate with other university medical schools to facilitate the translation of research to teaching, and in turn to health service delivery by graduates of those universities. We consider that this is important, but it requires funding to develop some exemplar models. We would encourage you to recommend that the Commonwealth and State governments commit funding to enable some models to develop.
It is important that the active health work force continues to learn about research findings and innovations in health services delivery, developments in preventative medicine, etc. Some medical specialist colleges have requirements for continuing education for ongoing accreditation. Some of that continuing education is in the form of conferences and dinners sponsored by pharmaceutical companies, which could raise at least a perception of conflict of interest. We would argue that universities and medical research institutes are well placed in terms of people with knowledge and skills, and should be funded to play a much greater role in the delivery of continuing education of a high academic quality based upon current research and proven innovations. This would further strengthen the linkages between the health and medical research community and the active health workforce, to enable more effective

translation of current research to the practitioners at the front line in health care and services delivery. This should, in turn, lead to better health and wellbeing of their patients. Additionally, it should serve to stimulate the research orientation of the health workforce, and lead to greater participation by them in studies and evaluations.

APPENDIX 1

**Table 1:** ***Excellence in Research for Australia 2010 rankings; Go8 Universities (1)***
***Medical and Health Sciences, and Biological Sciences***

***Medical and Health Sciences*** Biomedical and Clinical Health Sciences (BCH)

| *University* | **11** | 1101 | 1102 | 1103 | 1105 | 1107 | 1108 | 1109 | 1112 | 1113 | 1114 | 1115 | 1116 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ANU** | **5** | | | 4 | | 5 | | 4 | 5 | | | | 5 |
| **Monash** | **5** | | 5 | 5 | | 5 | 5 | 5 | 5 | | 4 | 5 | 5 |
| **U Adelaide** | **5** | | 5 | 4 | 4 | 4 | 5 | 3 | 5 | 1 | 5 | 4 | 5 |
| **U Melbourne** | **5** | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 3 | 5 | 5 |
| **UNSW** | **5** | | 5 | 5 | | 5 | 3 | 4 | 4 | 3 | 1 | 4 | 4 |
| **U Queensland** | **5** | 3 | 5 | 4 | 4 | 4 | 4 | 5 | 4 | | 4 | 4 | 3 |
| **U Sydney** | **5** | 4 | 5 | 5 | 3 | 4 | 4 | 4 | 5 | 5 | 2 | 3 | 4 |
| **U Western Australia** | **5** | 3 | 5 | 4 | 2 | 5 | 3 | 3 | 5 | 3 | 3 | 5 | 5 |

**BCH 11 Medical and Health Sciences**
BCH 1101 Medical Biochemistry and Metabolomics
BCH 1102 Cardiovascular Medicine and Haematology
BCH 1103 Clinical Sciences
BCH 1105 Dentistry
BCH 1107 Immunology
BCH 1108 Medical Microbiology
BCH 1109 Neurosciences
BCH 1112 Oncology and Carcinogenesis
BCH 1113 Ophthalmology and Optometry
BCH 1114 Paediatrics and Reproductive Medicine
BCH 1115 Pharmacology and Pharmaceutical Sciences
BCH 1116 Medical Physiology

***Medical and Health Sciences*** Public and Allied Health Sciences (PAH)

| **University** | **11** | 1104 | 1106 | 1110 | 1111 | 1117 | 1199 |
|---|---|---|---|---|---|---|---|
| **ANU** | **5** | | | | | 5 | |
| **Monash** | **2** | | 4 | 3 | 2 | 2 | |
| **U Adelaide** | **4** | | | 5 | 5 | 3 | |
| **U Melbourne** | **4** | | 5 | 5 | 3 | 4 | |
| **UNSW** | **3** | | 5 | | | 3 | |
| **U Queensland** | **4** | | 4 | 4 | 2 | 4 | |
| **U Sydney** | **4** | | 4 | 2 | 5 | 4 | |
| **U Western Australia** | **4** | | 4 | | 3 | 4 | |

PAH 11 Medical and Health Sciences
PAH 1104 Complementary and Alternative Medicine
PAH 1106 Human Movement and Sports Science
PAH 1110 Nursing
PAH 1111 Nutrition and Dietetics
PAH 1117 Public Health and Health Services
PAH 1199 Other Medical and Health Sciences

| University | 06 |
|---|---|
| ANU | 5 |
| Monash | 5 |
| U Adelaide | 4 |
| U Melbourne | 5 |
| UNSW | 5 |
| U Queensland | 5 |
| U Sydney | 3 |
| U Western Australia | 5 |

The rating scale used for ERA 2010 was:
**Rating Descriptor**
5 The Unit of Evaluation profile is characterised by evidence of outstanding performance **well above world standard** presented by the suite of indicators used for evaluation.

4 The Unit of Evaluation profile is characterised by evidence of performance **above world standard** presented by the suite of indicators used for evaluation.

3 The Unit of Evaluation profile is characterised by evidence of average performance **at world standard** presented by the suite of indicators used for evaluation.

2 The Unit of Evaluation profile is characterised by evidence of performance **below world standard** presented by the suite of indicators used for evaluation.

1 The Unit of Evaluation profile is characterised by evidence of performance **well below world standard** presented by the suite of indicators used for evaluation.

Blank: Not assessed due to low volume. The number of research outputs does not meet the volume threshold standard for evaluation in ERA.

Note: In order to achieve a rating at a particular point on the scale, the majority of the outputs from the Unit of Evaluation was expected to meet the standard for that rating point.

'World Standard' refers to a quality standard. It does not refer to the nature or geographical scope of particular subjects, nor to the locus of research, nor its place of dissemination.

***(1)Note that Medical Research Institutes are not in scope* of *Excellence in Research for Australia (ERA); it has been applied only to universities.***